## **ABSTRACT**

The invention relates to a method and apparatus for transmitting and receiving video data arranged in data frames forming a data stream. Each frame has assigned a priority level. Once a data frame has been transmitted through an unreliable channel and has not been received at the receiver, the priority level of the missing data frame is compared with a priority threshold value, and is then retransmitted if its priority level is greater than the priority threshold value. The retransmission decision is performed either at the transmitting or at the receiving side. According to a preferred embodiment, the priority level of any data frame to be transmitted is compared with the threshold value. The priority decision may involve the calculation of the priority threshold value based on a measurement of the available channel bandwidths and eventually on the bit rate of previously sent frames. The retransmission decision further may include an estimation of the arrival time of the data frame to be retransmitted.